**Electra Meeting #1**

Date: 2/3/2024 (Saturday)

Time: 10PM – 11:22PM

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| Problem Statement | Notes |
| **Full-Spectrum Monitoring: Safeguarding the Water Journey from Source to Tap**  Efficiently safeguarding the assets in water distribution network, from pump houses, reservoirs to intricate pipeline system, confronts challenges due to external threats like unmonitored construction sites, encroachment, slope failure and flooding, often beyond monitored zones. Such activities and incidents could harm our assets.  A comprehensive solution is needed for vigilant oversight, promoting early detection through advanced technologies. | Concept:   * Distribute water from source (Reservoir) to different destinations such as houses. * Along the pipelines, have challenges: * Unmonitored construction sites * Encroachment * Slope failure & flooding   Ideas:   * Develop model to detect the challenges. * Turn the pipeline off at a specific point (Need more research) * Camera sensor is impossible if the network is underground and in the bushes.   Anomaly detection   * Sensor * When there’s a leakage, the water pressure will be drop, it will detect the anomaly. * Give a set of data to train to detect which threshold is anomaly. * AI + ML |

Absentees: -

**Way-Forward**

* Research local water distribution network.
* Paul will give the example of source code from GitHub.
* Discuss idea & present research outcome about 2nd objective in WhatsApp group.
* Next meeting is to develop the abstract, which is on either 18th May or 19th May.